AMENDMENTS TO THE CLAIMS

1. (ORIGINAL) A difference profile for the detection of a disease in a mammal, comprising a plurality of spectral line positions and optionally corresponding signal intensities of NMR spectral lines, which express the normalized difference between one or more NMR spectra of metabolites in a body fluid of one or more healthy individuals of said mammal, and one or more corresponding NMR spectra of metabolites in a corresponding body fluid of one or more individuals of said mammal in which said disease has been diagnosed.

2. (ORIGINAL) A difference profile according to claim 1, wherein said mammal has been chosen from the group consisting of primates, dogs and rodents.

3. (CURRENTLY AMENDED) A difference profile according to claim 1~~ or 2~~, wherein said body fluid is urine.

4. (CURRENTLY AMENDED) A difference profile according to ~~any one of the preceding~~ claim~~s~~ 1, wherein said disease is selected from the group consisting of an immunological disease, a (chronic) inflammatory disease, a degenerative disease, cancer, an infectious disease, ~~and/or~~ a systemic disease.

5. (CURRENTLY AMENDED) A difference profile according to ~~any one of~~ claim~~s~~ 1~~-3~~, wherein said disease is osteoarthritis.

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6. (ORIGINAL) A difference profile according to claim 5, comprising the spectral lines and values corresponding thereto according to Table 1.

7. (CURRENTLY AMENDED) A database comprising one or more difference profiles according to ~~any one of~~ claim~~s~~ 1~~–6~~.

8. (ORIGINAL) A database according to claim 7, wherein said mammal is a human.

9. (CURRENTLY AMENDED) A method for the detection of a disease in a mammal, comprising the steps of providing an NMR spectrum of metabolites in a body fluid of an individual of said mammal in which said disease is suspected and comparing said NMR spectrum with a difference profile from a database according to claim 7~~ or 8~~, which difference profile has been determined for a corresponding body fluid from a corresponding mammal.

10. (ORIGINAL) A method according to claim 9, wherein said mammal has been chosen from the group consisting of primates, dogs and rodents.

11. (CURRENTLY AMENDED) A method according to claim 9~~ or 10~~, wherein said body fluid is urine.

12. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 9~~–11~~, wherein said disease is osteoarthritis.

13. (ORIGINAL) A method for manufacturing a difference profile for the detection of a disease in a mammal, comprising the steps

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of: a) providing a first normalized set of positions and corresponding signal intensities of spectral lines of one or more NMR spectra recorded from metabolites in a body fluid of one or more healthy individuals of said mammal; b) providing a second normalized set of positions and corresponding signal intensities of spectral lines of one or more NMR spectra recorded from metabolites in a corresponding body fluid of one or more individuals of said mammal in which said disease has been diagnosed; and c) detecting the spectral lines whose signal intensities differ between said first and second set, for obtaining said difference profile.

14. (CANCELLED)

15. (CURRENTLY AMENDED) A method according to claim 13~~ or 14~~, wherein said disease is osteoarthritis.

16. (CURRENTLY AMENDED) A method for identifying a biomarker for a disease, comprising manufacturing a difference profile according to ~~any one of~~ claim~~s~~ 1~~-6~~ and identifying one or more metabolites which are characterized by one or more defined spectral lines in said difference profile, which one or more metabolites, alone or in combination, characterize said biomarker.

17. (ORIGINAL) A method according to claim 16, wherein said one or more metabolites are characterized by one or more defined spectral lines with a positive regression.

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18. (CURRENTLY AMENDED) A method according to claim 16~~ or 17~~, wherein said disease is osteoarthritis.

19. (CURRENTLY AMENDED) A biomarker for the detection of a disease in a mammal, comprising one or more metabolites or parts thereof which are characterized by one or more defined spectral lines in a difference profile according to ~~any one of~~ claim~~s~~ 1-~~6~~.

20. (ORIGINAL) A biomarker for the detection of osteoarthritis, comprising one or more metabolites or parts thereof chosen from the group consisting of lactate, malate, ß-alanine, hypoxanthine, 3,4-dihydroxy mandelate, 3-hydroxy cinnamic acid, alanine, aspargine and N-acetyl aspartate, and combinations thereof.

21. (ORIGINAL) Use of a biomarker according to claim 19, for the detection of a disease in a mammal.

22. (ORIGINAL) Use of a biomarker according to claim 20, for the detection of osteoarthritis in a mammal.

23. (CURRENTLY AMENDED) A method for detection of a disease in a mammal, comprising measuring a biomarker according to claim 19 ~~or 20~~ in a body fluid of an individual of said mammal.

24. (ORIGINAL) A method according to claim 23, wherein said body fluid is urine.

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25. (CURRENTLY AMENDED) An apparatus for use of a method according to claim 23~~ or 24~~, comprising a solid carrier with one or more immobilized binding partners for said biomarker thereon.

26. (CURRENTLY AMENDED) An apparatus according to claim 25, further comprising a system for the quantitative detection of binding between said biomarker and said one ~~ore~~ or more immobilized binding partners.

27. (NEW) A database comprising one or more difference profiles according to claim 4.

28. (NEW) A database comprising one or more difference profiles according to claim 6.

29. (NEW) A database according to claim 27, wherein said mammal is a human.

30. (NEW) A database according to claim 28, wherein said mammal is a human.

31. (NEW) A method for the detection of a disease in a mammal, comprising the steps of providing an NMR spectrum of metabolites in a body fluid of an individual of said mammal in which said disease is suspected and comparing said NMR spectrum with a difference profile from a database according to claim 8, which difference profile has been determined for a corresponding body fluid from a corresponding mammal.

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32. (NEW) A method according to claim 31, wherein said disease is osteoarthritis.

33. (NEW) A method for identifying a biomarker for a disease, comprising manufacturing a difference profile according to claim 6 and identifying one or more metabolites which are characterized by one or more defined spectral lines in said difference profile, which one or more metabolites, alone or in combination, characterize said biomarker.

34. (NEW) A biomarker for the detection of a disease in a mammal, comprising one or more metabolites or parts thereof which are characterized by one or more defined spectral lines in a difference profile according to claim 6.

35. (NEW) A method for detection of a disease in a mammal, comprising measuring a biomarker according to claim 20 in a body fluid of an individual of said mammal.

36. (NEW) An apparatus for use of a method according to claim 24, comprising a solid carrier with one or more immobilized binding partners for said biomarker thereon.

37. (NEW) An apparatus according to claim 36, further comprising a system for the quantitative detection of binding between said biomarker and said one or more immobilized binding partners.

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